

A Review of the Marginellidae Described by BAVAY, 1903-1922

BY

BARRY ROTH

Department of Geology, California Academy of Sciences, San Francisco, California 94118

AND

PHILLIP W. CLOVER

925 Lexington Avenue, El Cerrito, California 94530

(8 Text figures)

INTRODUCTION

ARTHUR BAVAY (1840 - 1923) WAS A productive French malacologist who, between the years 1873 and 1923, published nearly 70 articles dealing with mollusks (FISCHER, 1924), plus numerous short notices, and contributions to works of other authors. His scientific interests also included herpetology, parasitology, and medical natural history. In the course of his professional travels, which included sojourns in Guadeloupe and New Caledonia, he made many biological observations. Following his retirement from a distinguished career in pharmacy and health, in which he held national office, he devoted himself entirely to studies in malacology (LAMY, 1924). His areas of specialization included terrestrial and freshwater mollusks of the Far East, on which he collaborated with Philippe Dautzenberg; the migration of mollusks across the Suez Canal; the Pectinidae, of which he assembled a sizeable collection; and, among marine gastropods, the family Marginellidae.

In 15 publications, Bavay described a total of 39 new species and 18 infraspecific taxa in the Marginellidae. Reference citations for all of these publications appear in the bibliography of the present paper, including two works authored by Dautzenberg with descriptions of marginellid species contributed by Bavay. The species were, in general, quite adequately characterized in the original publications, and most were illustrated by excellent figures. Bavay was a skilled draftsman and scrupulous observer of detail in the minute shells which occupied much of his research, and he seems to have appreciated the value of good illus-

trations. Locality data were provided for almost all his described taxa, many of which came from French colonial possessions. Working as he did at the Muséum National d'Histoire Naturelle in Paris, Bavay had ready access to the type material of E. P. Jousseaume, another describer of many species of Marginellidae. BAVAY (1922b) published some of Jousseaume's manuscript species after the latter's death.

Nevertheless, perhaps partly because they appeared too late for inclusion in the great 19th century monographs of the family, and partly because most of them were published in separate, short papers, Bavay's marginellid species have seldom been cited or recognized by subsequent authors. His latest works appeared after publication of TOMLIN's (1917) comprehensive list of species of Marginellidae, and are therefore absent from that valuable compilation.

It is the purpose of this paper to bring all the Bavay marginellid species together in one reference, to suggest generic assignments based on modern concepts of marginellid classification, and to report on the status of relevant type material. In October 1971 the junior author had the opportunity to visit the mollusk collections of the Muséum National d'Histoire Naturelle to study and photograph the extant types. This study was aided by the generous assistance of Dr. Bernard Salvat of that institution. Those type specimens which could be located were in 3 areas of the museum: (1) the general collection (identified as "Coll. Gén." in the listing which follows), (2) a cabinet of types of species described in the *Journal de Conchyliologie* ("Coll. du Journal"), and (3) a drawer

labeled *Mission Gruvel*, containing in particular species collected by the Gruvel expeditions to West Africa in the early part of this century ("Mission Gruvel drawer"). A number of types could not be found, and in the absence of other evidence these are tentatively considered to be lost, on the advice of Dr. Salvat (letter to Roth, 12 May 1971). Missing, for example, are all but one type specimen of the species Bavay described in 1917; perhaps these were the victims of some mischance during World War I. Non-type material of some of the species is present in the general collection; and during Bavay's lifetime some material handled and identified by him was distributed to various other institutions. Authenticated specimens of this sort would be suitable candidates for neotype designations, should the need ever arise.

FISCHER-PIETTE & BEIGBEDER (1944) published a list of marine gastropod types in the museum collection; and FISCHER-PIETTE (1950) listed type material present in the Collection du Journal. These lists contain some but not all of Bavay's species. Where these reports differ from the junior author's findings, the fact is noted below.

A slightly different case of absent type material is that of Bavay's infraspecific taxa. It was Bavay's practice, as it was that of certain other malacologists of the time, to name "varieties" of his own and other authors' species. These were not conceived in the sense of geographic subspecies. For 17 of the 18 taxa he named in this form, Bavay did not segregate type material. From this fact, it is easy to infer that he himself did not consider his "varieties" to be of coordinate rank with his species. Investigation shows them, in most cases, to be nothing more than individual variants of their "parent" species; and in such instances we have not hesitated to relegate them to synonymy. It has sometimes been possible to recognize specimens with the characters of the varietal descriptions among non-type material of Bavay's in the museum collections.

For nomenclatural purposes, however, the varietal names cannot be dismissed so easily. According to Article 17 of the International Code of Zoological Nomenclature, "a name is or remains available even though . . . before 1961, it was proposed as a 'variety' or 'form' ". In addition [Article 45(e)(i)], "before 1961, the use of either of the terms 'variety' or 'form' is not interpreted as an express statement of . . . infrasubspecific rank." In other words, as long as they are accompanied by an indication, in the sense of Article 16 of the Code, and satisfy the other criteria of availability specified by Section IV of the Code, the names are available for application to their taxa, and must be recognized in questions of homonymy.

This interpretation was, in effect, applied by TOMLIN (1917) when he considered the name *Marginella bivittata*

Bavay in Dautzenberg, 1912, to be preoccupied by *Marginella chudeaui* var. *bivittata* Bavay in Dautzenberg, 1910, and renamed the former *Marginella ameliensis*. In this connection it is tempting to quote TOMLIN (*op. cit.*: 242): "A point with regard to specific names which is much overlooked, especially by certain living authors who have a passion for varietal names, is that under the present code these [varietal] names are on precisely the same footing as the specific names in their genus. Consequently, and I may say fortunately, the inevitable multiplication of 'var. major', 'var. minor', 'var. alba', and the like has had the very opposite effect to that intended by their sponsors, and 99 per cent of them come into literature still-born."

Of Bavay's 39 described nominal species, 31 are here treated as valid, 8 are considered junior subjective synonyms of other species. Of the 18 described "varieties" – 19 if Bavay's "var. B" of *Marginella hirasei* be counted – all but one are likewise synonymized. Further study may show that that one represents a valid geographic subspecies. An entry is also included for one unpublished name.

ACKNOWLEDGMENTS

The authors wish to express their gratitude for the many courtesies extended by Dr. Bernard Salvat, École Pratique des Hautes Études, Paris. Comparative work was made possible by the cooperation of personnel of the National Museum of Wales and the British Museum (Natural History). The kind assistance of S. Peter Dance, and the opinions and advice of Eugene V. Coan, A. Myra Keen, Nell H. Ludbrook and Peter U. Rodda are gratefully acknowledged.

EXPLANATION OF FORMAT

Entries in the list which follows are arranged alphabetically by species name. Each entry contains: the specific or varietal name; authorship, if not simply attributed to Bavay; the genus of original proposal, if other than *Marginella*; date of publication; citation of original description and figure; type locality, bracketed information being supplied by the present authors; present status of type material and its location ("Coll. Gén.", "Coll. du Journal", or "Mission Gruvel drawer"); dimensions of type material; and modern generic allocation or synonymy. Where necessary, commentary follows each entry. Generic allocations are based partly on a classification of the family prepared by Eugene V. Coan and the senior author for the *Treatise on Invertebrate Paleontology*.

LIST OF MARGINELLIDAE DESCRIBED BY BAVAY

albida Bavay in Dautzenberg, *M. pallata* var. Dec. 1912. Ann. Inst. Océanogr. 5 (3): 24. "Avec le type." No type material found. = *Gibberula pallata* (Bavay in Dautzenberg, 1912), *q. v.* (Not *Marginella triticea* var. *albida* Lamarck, 1822, nor *M. albida* Tate, 1878).

albina Bavay in Dautzenberg, *M. gruvelli* var. Dec. 1912. Ann. Inst. Océanogr. 5 (3): 25. Bay of Praia Amelia, 15 - 35 meters, and beach at Mossamedes [Angola]. No type material found. = *Persicula gruvelli* (Bavay in Dautzenberg, 1912), *q. v.* (Not *Marginella albina* Gaskoin, 1853).

amazona Bavay in Dautzenberg. Dec. 1912. Ann. Inst. Océanogr. 5 (3): 19 - 20; plt. 1, figs. 19, 20. Cotonou [Dahomey]. Holotype, Mission Gruvel drawer, MNHNP. 20.4 × 12 mm. *Marginella* (*Marginella*).

On shell characters this species appears to stand near *Marginella helmatina* Rang, 1832, and *M. cumingiana* Petit, 1841. It differs from the other two species mainly in having many wavy longitudinal color lines, a more flared outer lip, and in the development of a heavy pad of callus across the parietal wall. In *M. helmatina* and *M. cumingiana* the axial lines disappear after 3 or 4 turns of growth. It may be correct to regard this as a southern subspecies of *M. helmatina*. It is evidently rare. Referable museum specimens include one 24 mm long in the British Museum (Natural History) (Reg. No. 1936.4.17.50), and a 25 mm specimen in the Muséum d'Histoire Naturelle in Geneva.

ambigua Bavay in Dautzenberg. Dec. 1912. Ann. Inst. Océanogr. 5 (3): 22 - 23; plt. 1, figs. 21, 22. Rio de Oro [Spanish Sahara]. Holotype, Mission Gruvel drawer, MNHNP. 14.0 × 6.0 mm. = *Volvarina deliciosa* (Bavay in Dautzenberg, 1912).

The subjective characters by which Bavay distinguished *Marginella ambigua* from his *M. deliciosa* are imprecise, and the features of the holotype of *M. ambigua* can be duplicated in a lot of about 30 topotypic *M. deliciosa* in the general collection. Since both names date from the same publication, in synonymizing them we are acting as "first revisers" in the sense of Article 24 (a) of the International Code of Zoological Nomenclature.

Bavay had two specimens of *Marginella ambigua*. One was the present holotype; the other, a bandless individual, was designated as the "var. *concolor*" (in DAUTZENBERG, 1912: 22). This specimen was not found by the junior author; it is certain to be another synonym of *Volvarina deliciosa*.

atomella, *Marginella* (*Granula*). Aug. 1917. Journ. de Conchyl. 63 (2): 101 - 102; plt. 2, fig. 6. Mauritius and Réunion. Type not found. Given as 0.8 × 0.6 mm. = *Granulina pulvis* (Jousseaume, 1875).

The type was not present in the Journal Collection in 1950 (FISCHER-PIETTE, 1950) and could not be located by the junior author. BAVAY (1922a: 57 - 59) later synonymized this species with *Granulina pulvis* (Jousseaume, 1875), and, considering that Réunion is the type locality of the latter species, this seems entirely plausible.

aurata Bavay in Dautzenberg. Dec. 1912. Ann. Inst. Océanogr. 5 (3): 26; plt. 1, figs. 33, 34. Bay of Mossamedes [Angola], 15 - 20 meters. Holotype, Mission Gruvel drawer, MNHNP. 2.5 × 1.5 mm. *Gibberula*.

The unique holotype has an indented canal in the anterior margin, which does not show well in the original illustration.

bivittata Bavay in Dautzenberg, *M. chudeaui* var. 1910. Actes Soc. Linn. Bordeaux 64: 89. Port Etienne, Cançado Bay, etc. No type material found. = *Gibberula chudeaui* (Bavay in Dautzenberg, 1910), *q. v.*

bivittata Bavay in Dautzenberg. Dec. 1912. Ann. Inst. Océanogr. 5 (3): 23; plt. 1, figs. 23, 24. Bay of Praia Amelia, 15 - 35 meters. Holotype, Mission Gruvel drawer, MNHNP. 8.0 × 4.0 mm. = *Volvarina ameliensis* (Tomlin, 1917). (Not *Marginella chudeaui* var. *bivittata* Bavay in Dautzenberg, 1910).

TOMLIN (1917: 252, 254) renamed this species on account of the prior *Marginella chudeaui* var. *bivittata*. Its relationship to *Volvarina exilis* (Gmelin, 1791) seems close.

bougei. Aug. 1917. Journ. de Conchyl. 63 (2): 103 - 104; 67 (1): plt. 1, figs. 6, 7. Ouvea, Wallis Islands. Holotype, Coll. du Journal, MNHNP. 1.4 × 0.7 mm. *Granulina*.

By error, the figure accompanying the original description (1917: plt. 2, fig. 3) showed another species. The holotype was later correctly figured by BAVAY (1922a), at which time he reported the species from New Caledonia.

cherubini. Nov. 1922. Journ. de Conchyl. 67 (1): 64 - 65; plt. 1, fig. 8. Seychelles Islands. Holotype, Coll. du Journal, MNHNP. 3.5 × 2.5 mm. *Persicula*.

DAUTZENBERG (1929) reported this species from Madagascar, based on identifications by Bavay.

chudeaui Bavay in Dautzenberg. 1910. Actes Soc. Linn. Bordeaux 64: 87 - 88; plt. 2, figs. 1, 2. Dredged, Cansado Bay [Mauritania; label with type]. Holotype, Mission Gruvel drawer, MNHNP. Length 4.5 mm. *Gibberula*.

Descriptions of Bavay's "varieties", *major*, *elongata*, *quinquevittata*, *trivittata*, *bivittata*, and *univittata* (in DAUTZENBERG, 1910: 88 - 89), for which no type material was found to be segregated, suggest only individual variants of the species. Specific localities for the varieties were not published.

clandestinella, *M. clandestina* Brocchi, var. March 1908. Journ. de Conchyl. 55 (4): 344. Martinique. No type material found. Size "one-third smaller than *M. clandestina*." See next entry.

clandestinella. 1913. Bull. Mus. Nat. Hist. Nat. 19 (6): 358 - 359; text figs. 1, 2. Bahia, Brazil. Four syntypes, marked "cotypes", Coll. Gén. Length 1.5 mm. = *Granulina ovuliformis* (Orbigny, 1841).

If "*Marginella clandestina* Brocchi, var. *clandestinella*", with its very brief description, be considered a *nomen nudum*, then *Marginella clandestinella* of 1913 is validly proposed; otherwise, being published in synonymy of the former, the latter name is technically unavailable. As the specific epithet is the same in both cases, the question is principally of theoretical interest. The 4 "cotypes" from Bahia are all that we have to demonstrate Bavay's concept of both taxa, so regardless of the nomenclatural solution they may be considered to have the weight of primary type material.

The authors are unable to suggest any characters of the "cotypes" which would differentiate them from *Granulina ovuliformis* (Orbigny). The latter is the oldest of several names applied to Caribbean members of the genus; the actual number of species in the province awaits determination.

columnella Bavay in Dautzenberg. Dec. 1912. Ann. Inst. Océanogr. 5 (3): 26; plt. 1, figs. 31, 32. Bay of Praia Amelia, 15 - 35 meters. Holotype, Mission Gruvel drawer, MNHNP, 2.8 × 1.5 mm. *Granula*.

concolor Bavay in Dautzenberg, *M. ambigua* var. Dec. 1912. Ann. Inst. Océanogr. 5 (3): 22. Rio de Oro [Spanish Sahara]. No type material found. = *Volvarina deliciosa* (Bavay in Dautzenberg, 1912). See discussion under *M. ambigua* above.

concolor Bavay in Dautzenberg, *M. gruvelli* var. Dec. 1912. Ann. Inst. Océanogr. 5 (3): 25. "Avec le type à Praya-Amelia." No type material found. = *Persicula gruvelli* (Bavay in Dautzenberg, 1912). *q. v.*

corallina, *Marginella* (*Volvarina*). June 1910. Journ. de Conchyl. 58 (1): 22 - 23; plt. 1, figs. 1, 2. Cape Verde Islands. Holotype, in Coll. du Journal, *fide* FISCHER-PIETTE (1950), but not found by present authors. Given as 5 × 1.6 mm. *Volvarina*.

The description and figures strongly suggest *Volvarina mediocincta* (E. A. Smith, 1875), also from the Cape Verdes, and the two may be synonymous.

decaryi, *Marginella* (*Volvaria*). Nov. 1920. Journ. de Conchyl. 65 (2): 164 - 165; 2 text figs. Between False Cape and Cape Sainte-Marie, Madagascar. Holotype, Coll. Gén., MNHNP. 2.4 × 0.8 mm. *Ovaginella*.

The holotype resembles *Marginella cylichnella* May, 1917, which was placed in *Ovaginella* by LASERON, 1957.

deliciosa Bavay in Dautzenberg. Dec. 1912. Ann. Inst. Océanogr. 5 (3): 21 - 22; plt. 1, figs. 25, 26. 3.5 miles north of Point Cansado [Mauritania], 9 - 10 meters. Holotype, Mission Gruvel drawer, MNHNP. 12.0 × 6.0 mm. *Volvarina*.

The holotype was evidently selected from a lot of about 30 specimens now in the general collection which vary in color from white to pinkish, with some specimens having 2 pairs of darker, spiral, parallel bands on the body whorl. Bavay's "var. *efasciata*" (in DAUTZENBERG, 1912: 22), which was said to be found with the typical species and for which no type was segregated, is clearly only the pale, unbanded color form.

delphinica. Nov. 1920. Journ. de Conchyl. 65 (2): 165 to 166; 2 text figs. Between False Cape and Cape Sainte-Marie, Madagascar. Holotype, Coll. Gén., MNHNP. 3.0 × 1.5 mm. ?*Alaginella*.

None of the species originally placed by LASERON (1957) in *Alaginella* have axial plications, but *M. delphinica* appears similar in other respects. *Plicaginella* (type species, *Marginella formicula* Lamarck, 1822) is plicate, but has a deep anterior notch.

dispoliata (Jousseau MS). 1922. Bull. Mus. Nat. Hist. Nat. 28 (1): 76 - 77; text fig. 1. Djibouti [French Somaliland], subfossil. Type not found. Given as 3 × 1.5 mm. *Dentimargo*. (Figure 1).

efasciata Bavay in Dautzenberg, *M. deliciosa* var. Dec. 1912. Ann. Inst. Océanogr. 5 (3): 22. "Habite avec le type." No type material found. = *Volvarina deliciosa* (Bavay in Dautzenberg, 1912), *q. v.* (Not *Marginella miliaria* var. *efasciata* Monterosato, 1875, a *nomen nudum*, *fide* TOMLIN, 1917).



Figure 1

Marginella dispoliata Bavay, ex Jousseume MS.
Copy of original figure

elongata Bavay in Dautzenberg, *M. chudeaui* var. 1910. Actes Soc. Linn. Bordeaux 64: 88. Port Etienne, Can-sado Bay, etc. No type material found. = *Gibberula chudeaui* (Bavay in Dautzenberg, 1910), *q. v.*
fischeri. Mar. 1903. Journ. de Conchyl. 50 (4): 407 - 408; plt. 8, figs. 10, 11. Locality unknown. Holotype, Coll. du Journal, MNHNP. 10.5 × 6.5 mm. *Cryptospira*.

Specimens agreeing well with the holotype of this species have recently been dredged in 64 m off southern Palawan, Philippine Islands (material in junior author's private collection). Some have 1, 2, or 4 narrow reddish spiral bands, instead of the 3 exhibited by the type; the 4-banded condition is most common.

Bavay compared *Marginella fischeri* to *M. tricincta* Hinds, 1844, type species of the genus *Cryptospira*. In having the spire visible instead of immersed, however, it is more similar to the holotype of *M. immersa* Reeve, 1865, in the British Museum (Natural History). The latter shell is beachworn and white.

fulva, *Marginella (Volvaria) serrei* var. 1913. Bull. Mus. Nat. Hist. Nat. 19 (7): 483. Bahia, Brazil. No type material found. = *Volvarina serrei* (Bavay, 1913), *q. v.*

gemmula Bavay in Dautzenberg. Dec. 1912. Ann. Inst. Océanogr. 5 (3): 20 - 21; plt. 1, figs. 17, 18. [Bay of Praia Amelia, 15 - 35 meters; label with type.] Holotype, Mission Gruvel drawer, MNHNP. 5.0 × 3.0 mm. *Marginella (Simplicoglabella)*.

germaini, *Marginella (Volvaria)*. 1913. Bull. Mus. Nat. Hist. Nat. 19 (7): 483; plt. 20, figs. 1, 2. Bahia, Brazil. Type not found. Given as 3.5 × 1.8 mm. *Volvarina*.

goubini. Nov. 1922. Journ. de Conchyl. 67 (1): 60 - 61; plt. 1, fig. 10. Lifou [Loyalty Islands]. Holotype lost from Coll. du Journal. Given as 2.7 × 1.25 mm. *Euliginella*.

The unique holotype was present in the Journal Collection in 1950 (FISCHER-PIETTE, 1950), but a note on its box indicates that it has been missing since 1964.

gruveli Bavay in Dautzenberg. Dec. 1912. Ann. Inst. Océanogr. 5 (3): 24 - 26; plt. 1, figs. 29, 30. Bay of Mossamedes, 15 - 20 meters [label with type]. Holotype, Mission Gruvel drawer, MNHNP. 6.5 × 4.0 mm. *Persicula*.

No type material was found segregated for Bavay's "var. *concolor*" and "var. *albina*" (in DAUTZENBERG, 1912: 25). Some lots of *M. gruveli* in the general collection, from the other localities mentioned in the original publication, may contain the specimens upon which Bavay based his varieties. The epithet "*albina*" is preoccupied in *Marginella*, and Bavay also applied the name "*concolor*" to a variety of *Marginella ambigua* in the same paper.

hervieri. Nov. 1922. Journ. de Conchyl. 67 (1): 61 - 62; plt. 1, figs. 1, 2. Lifou [Loyalty Islands]. Holotype, Coll. du Journal, MNHNP. 3.4 × 2.0 mm ?*Eratoidea*.

hirasei, *Marginella (Volvaria)*. Aug. 1917. Journ. de Conchyl. 63 (2): 106 - 108; plt. 2, fig. 9. Kikai [Amami Islands]. Type not found. Given as 7 × 2 mm. *Volvarina*.

The holotype was not present in the Journal Collection in 1950 (FISCHER-PIETTE, 1950) and could not be located by the junior author. Also absent was material of Bavay's "var. B" (1917: 107), which from its description appears to be an unbanded individual of the same species.

joubini, *Marginella (Volvaria)*. 1913. Bull. Mus. Nat. Hist. Nat. 19 (7): 483; plt. 20, figs. 3, 4. Bahia, Brazil. Holotype, with label by Fischer, 1942, Coll. Gén., MNHNP. Length 4.5 mm. = *Volvarina bahiensis* (Tomlin, 1917) (Not *Marginella (Volvarina) joubini* Dautzenberg & H. Fischer, 1906.)

The outer lip of the holotype has been broken back about to the growth line visible in the original figure. It is a juvenile shell. Its evident slimness suggests close relationship if not identity with *Volvarina gracilis* (C. B. Adams, 1850); both species were reported from Brazilian localities by Rios (1970).

It was renamed *Marginella bahiensis* by TOMLIN (1917: 252, 273).

jullieni, *M. miliaris* [sic] L., var. Aug. 1917. Journ. de Conchyl. 63 (2): 96 - 97; plt. 2, fig. 1. Grand-Cess, Garraway, Liberia. Type not found. Given as 3 × 2 mm. ? = *Gibberula miliaria* (Linnaeus, 1758).

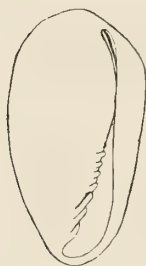


Figure 2

Marginella (Volvaria) larva Bavay
Copy of original figure

larva, Marginella (Volvaria). 1922. Bull. Mus. Nat. Hist. Nat. 28 (6): 427-428; text fig. 4. Colon [Canal Zone]. Nine syntypes, marked "cotypes", Coll. Gén., MNHNP. Length 2-4 mm. *Cystiscus*. (Figure 2.)

Cystiscus larva is an earlier name for *Gibberula bocasensis* Olsson & McGinty (1958: 39; plt. 4, fig. 10), which was originally cited as occurring at Colon. The latter species was first placed in *Cystiscus* by KEEN (1971), in comparison with the similar west American *C. politulus* (Dall, 1919).

louisae. 1913. Bull. Mus. Nat. Hist. Nat. 19 (5): 297; text fig. Réunion. Four syntypes, Coll. Gén., MNHNP, with label by Fischer, 1943. Length 2-2.25 mm. *Granula*.



Figure 3

Marginella (Glabella) macnairi Bavay
Copy of original figure

macnairi, Marginella (Glabella). 1922. Bull. Mus. Nat. Hist. Nat. 28 (6): 426; text fig. 2. Colon [Canal Zone; label with types]. Fourteen syntypes, Coll. Gén., MNHNP. Length 2-2.5 mm. = *Dentimargo aureocincta* (Stearns, 1873). (Figure 3.)

Dentimargo aureocincta was reported from the Caribbean coast of Panama by OLSSON & MCGINTY (1958).

major Bavay in Dautzenberg, *M. chudeaui* var. 1910. Actes Soc. Linn. Bordeaux 64: 88. Port Etienne, Cansado Bay, etc. No type material found. = *Gibberula chudeaui* (Bavay in Dautzenberg, 1910), *q. v.*

The several prior applications of the epithet "*major*" in Marginellidae, as compiled by TOMLIN (1917), appear to be *nomina nuda*.

micros, Marginella (Volvaria). Nov. 1922. Journ. de Conchyl. 67 (1): 63-64; plt. 1, figs. 3. Tuamotu Islands. Holotype, Coll. du Journal, MNHNP. 1.5 × 0.8 mm. ?*Cystiscus*.

The holotype agrees in most respects with the description of *Haloginella infans* Laseron (1957: 299-300; fig. 66) from Mast Head Island, Capricorn Group, Queensland.

minor, M. pulchella Kiener, var. Nov. 1920. Journ. de Conchyl. 65 (2): 163. Madagascar. No type material found. = *Persicula pulchella* (Kiener, 1834).

Preoccupied by *Marginella minor* C. B. Adams, 1852.

montrouzieri. Nov. 1922. Journ. de Conchyl. 67 (1): 62 to 63; plt. 1, figs. 4, 5. Lifou [Loyalty Islands]. Holotype Coll. du Journal, MNHNP. 1.5 × 1.0 mm. *Crithe*.

The holotype is a juvenile shell, with thin outer lip. In the course of describing *M. montrouzieri*, Bavay introduced 2 *nomina nuda*: "*M. wardeni* Iredale" and "*M. wallacei* Iredale" (not *Egouena wallacei* Jousseaume, 1875). Museum lots labeled with the Iredale manuscript names, from the Kermadec Islands, exist in the British Museum (Natural History) (Reg. Nos. 1911.11.2.117 to 119, and 1911.11.2.120 to 122), and possibly elsewhere; these specimens closely resemble the holotype of *Granulina bougei* (Bavay, 1917).

(*morgani* Bavay MS. Two specimens, Coll. Gén., MNHNP, from Perim Island, southern Red Sea, bear this unpublished name. They are undoubtedly specimens of a described species of *Granulina*.)

pallata Bavay in Dautzenberg. Dec. 1912. Ann. Inst. Océanogr. 5 (3): 24; plt. 1, figs. 27, 28. Bay of Praia Amelia, 15-35 meters [label with type]. Holotype, Mission Gruvel drawer, MNHNP. 5.5 × 3.5 mm. *Gibberula*.

Bavay's "var. *pallida*" and "var. *albida*" (in DAUTZENBERG, 1912: 24), for which no type material was segre-

gated, are merely color forms of this species. Both of the varietal names have prior usage in Marginellidae.

pallida Bavay in Dautzenberg, *M. pallata* var. Dec. 1912. Ann. Inst. Océanogr. 5 (3): 24. "Avec le type." No type material found. = *Gibberula pallata* (Bavay in Dautzenberg, 1912), *q. v.* (Not *Bulla pallida* Linnaeus, 1758; *Volvaria pallida* Blainville, 1829; *Marginella miliaria* var. *pallida* Bucquoy, Dautzenberg & Dollfus, 1883; etc. See TOMLIN, 1917.)

perexilis. 1922. Bull. Mus. Nat. Hist. Nat. 28 (1): 78 - 79; text fig. 3. Paraíba, Brazil. Type not found. Given as 3.4×1.3 mm. *Dentimargo*. (Figure 4.)

Bavay compared the species to his *M. joubini*, but the illustration looks like a species of *Dentimargo*, possibly *D. aureocincta* (Stearns, 1873).



Figure 4

Marginella perexilis Bavay
Copy of original figure

perrieri, *Marginella* (*Volvarina*) [*Marginella* (*Volvaria*) on plate]. Feb. 1906. Journ. de Conchyl. 53 (3): 248 to 249; plt. 7, figs. 5, 6. Malouines Insulas [Falkland]. Type not found. Given as 11×5 mm. *Volvarina*.

Bavay's original figure shows a small hole just below the spire which should make the figured specimen easy to identify if ever found. This species was reported from the Rio Plata area of Uruguay and Argentina by CARCELLES (1953). As remarked by Bavay, its relationship to *Volvarina avena* (Kiener, 1834) of Brazil and the Caribbean seems close.

pupa. 1922. Bull. Mus. Nat. Hist. Nat. 28 (1): 79 - 80; text fig. 4. Paraíba, Brazil. Type not found. Given as 3.6×1.4 mm. *Volvarina*. (Figure 5.)

The figure looks like a juvenile shell, although some thickening of the outer lip is mentioned. Bavay suggested assignment to *Volvarina*.



Figure 5

Marginella pupa Bavay
Copy of original figure

quinguevittata Bavay in Dautzenberg, *M. chudeaui* var. 1910. Actes Soc. Linn. Bordeaux 64: 89. Port Etienne, Cansado Bay, etc. No type material found. = *Gibberula chudeaui* (Bavay in Dautzenberg, 1910). *q. v.*

reducta, *Marginella* (*Glabella*). 1922. Bull. Mus. Nat. Hist. Nat. 28 (6): 426 - 427; text fig. 3. Cuba. Type not found. Given as 3×1.6 mm. *Dentimargo*. (Figure 6.)

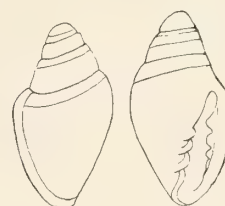


Figure 6

Marginella (*Glabella*) *reducta* Bavay
Copy of original figure

roberti (de Monterosato MS), *Marginella* (*Volvaria*). Aug. 1917. Journ. de Conchyl. 63 (2): 104 - 106; plt. 2, fig. 8. Madeira Islands. Type not found. Given as 9×4 mm. ? = *Volvarina mitrella* (Risso, 1826).

rosea, *M. lantzii* Jousseaume, var. Nov. 1920. Journ. de Conchyl. 65 (2): 163 - 164. Madagascar. No type material found. = *Dentimargo lantzii* (Jousseaume, 1875), ? subsp.

Preoccupied by *Marginella rosea* Lamarck, 1822.

rosea, *M. pumila* Redfield, var. Nov. 1920. Journ. de Conchyl. 65 (2): 164. Madagascar. No type material found. = *Eratoidea pumila* (Redfield, 1870).

Preoccupied by *Marginella rosea* Lamarck, 1822. DAUTZENBERG (1929) reported both typical *M. pumila* and this variety from southern Madagascar localities.

serrei, *Marginella* (*Volvaria*). 1913. Bull. Mus. Nat. Hist. Nat. 19 (6): 359 - 360; fig. 3. Bahia, Brazil. Four syntypes, marked "cotypes", and a lot of 13 paratypes, Coll. Gén., MNHNP; two paratypes, National Museum of Wales. Length 5 - 6 mm. *Volvarina*.

FISCHER-PIETTE & BEIGBEDER (1944) reported 5 syntypes present. Bavay's "var. *fulva*" (1913c: 483), for which no type material was segregated, is probably only a color form; it was synonymized with the species by RIOS (1970).

LUDBROOK (1958) mentioned this species in describing *Volvarina* (?) *incommoda*; that species, however, belongs in *Canalispira* Jousseume, 1875, and represents the first recorded Pliocene occurrence of that genus.

serrei, *Marginellopsis*. 1911. Bull. Mus. Nat. Hist. Nat. 17 (4): 240 - 243; text fig. 1. Cuba. Eight probable syntypes labeled "Serre, M. P. in 1911 (8) Cuba", Coll. Gén., MNHNP. Length 1 mm. Type species, by monotypy, of *Marginellopsis* Bavay, 1911.

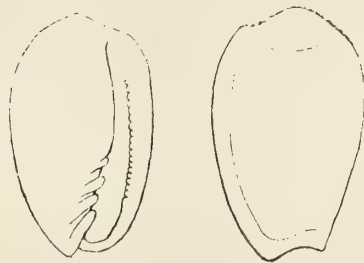


Figure 7

Marginella terverianella Bavay, ex Jousseume MS.
Copy of original figure

terverianella (Jousseume MS). 1922. Bull. Mus. Nat. Hist. Nat. 28 (1): 80 - 81; text figs. 5, 5a. Djibouti [French Somaliland]. Type not found. Given as 4×2.6 mm. ?*Gibberula*. (Figure 7.)

tomlini. Aug. 1917. Journ. de Conchyl. 63 (2): 102 - 103; plt. 2, fig. 7. Ouvea, Wallis Islands. Type not found. Given as 2.5×1.15 mm. *Cystiscus*. (Not *Marginella tomlini* Shackleford, 1916).

The type specimen was not present in the Journal Collection in 1950 (FISCHER-PIETTE, 1950) and could not be located by the junior author. The name is a primary homonym of *Marginella tomlini* Shackleford 1916; the present state of our knowledge of minute Indo-Pacific Marginellidae makes its renaming inadvisable at this time.

trivittata Bavay in Dautzenberg, *M. chudeaui* var. 1910.

Actes Soc. Linn. Bordeaux 64: 89. Port Etienne, Cansado Bay, etc. No type material found. = *Gibberula chudeaui* (Bavay in Dautzenberg, 1910), *q. v.*

turbiniiformis. Aug. 1917. Journ. de Conchyl. 63 (2): 98 - 99; plt. 2, fig. 2. Lifou [Loyalty Islands]. Type not found. Given as 3×2 mm. *Protoginella*.

The type material was absent from the Journal Collection in 1950 (FISCHER-PIETTE, 1950). The general collection contains one lot of 6 shells, 2.5 to 3 mm long, which resemble the original illustration, but no single specimen could be matched to the figure.

univittata Bavay in Dautzenberg, *M. chudeaui* var. 1910.

Actes Soc. Linn. Bordeaux 64: 89. Port Etienne, Cansado Bay, etc. No type material found. = *Gibberula chudeaui* (Bavay in Dautzenberg, 1910), *q. v.*

(var. B, *Marginella* (*Volvaria*) *hirasei*. Aug. 1917. Journ. de Conchyl. 63 (2): 107. Oshima [Amami Islands]. No type material found. = *Volvarina hirasei* (Bavay, 1917), *q. v.*



Figure 8

Marginella virgula Bavay, ex Jousseume MS.
Copy of original figure

virgula (Jousseume MS). 1922. Bull. Mus. Nat. Hist. Nat. 28 (1): 78; text fig. 2. Perim [Island, southern Red Sea; label with type lot]. Lot of about 56 probable syntypes, Coll. Gén., MNHNP, with label by Fischer, 1942. Given as 3.8×2 mm. = *Granula louisa* (Bavay, 1913). (Figure 8.)

The original figure does not show that the anterior margin is indented into a shallow notch, as in the prob-

able syntypes. DAUTZENBERG (1929) reported this species from Madagascar, based on determinations by Bavay. It appears to be a synonym of *Granula louisae* (Bavay, 1913), described from Réunion.

Literature Cited

- BAVAY, ARTHUR
1902 [1903]. Description d'une espèce nouvelle du genre *Marginella*. Journ. de Conchyl. 50 (4): 407-408; plt. 8, figs. 10-11 [25 March 1903]; dated, *ibid.*, p. 449
1906. Sur quelques coquilles oubliées du Muséum de Paris. Journ. de Conchyl. 53 (3): 248-256; plt. 7, figs. 5-18 (20 February 1906)
1908. Description d'une espèce nouvelle appartenant au genre *Stenotis* et d'une variété de *Marginella*. Journ. de Conchyl. 55 (4): 342 to 344; 3 text figs. (30 March 1908)
1910a. Description d'une espèce nouvelle du genre *Marginella* provenant de l'Archipel du Cap Vert. Journ. de Conchyl. 58 (1): 22-23; plt. 1, figs. 1, 2 (30 June 1910)
1910b. see DAUTZENBERG, PHILIPPE, 1910
1911. Une marginellidée nouvelle de Cuba. Bull. Mus. Nation. Hist. Nat. Paris 17 (4): 240-243; text fig.
1912. see DAUTZENBERG, PHILIPPE, 1912
1913a. Sables de la Réunion (Saint-Pierre, Saint-Gilles, l'Ermitage, etc.) récoltés par Mme. Le Rat: description d'une marginelle nouvelle. Bull. Mus. Nation. Hist. Nat. Paris 19 (5): 296-298; text fig.
1913b. Sables coquilliers recueillis par M. P. Serre à Bahia (Brésil). Bull. Mus. Nation. Hist. Nat. Paris 19 (6): 358-360; text figs. 1-3
1913c. Sables de Bahia récoltés par M. Serre, Consul de France. Bull. Mus. Nation. Hist. Nat. Paris 19 (7): 481-483; plt. 20
1917. Quelques coquilles des sables littoraux de divers pays. Journ. de Conchyl. 63 (2): 91-114; pls. 2, 3 (31 August 1917)
1920. Sables littoraux de Madagascar, Marginelles. Journ. de Conchyl. 65 (2): 163-168; 3 text figs. (20 November 1920)
1922a. Coquilles des sables littoraux marins. Journ. de Conchyl. 67 (1): 57-66; plt. 1 (1 November 1922)
1922b. Marginelles nouvelles de la collection Jousseaume. Bull. Mus. Nation. Hist. Nat. Paris 28 (1): 76-81; text figs. 1-5a
1922c. Sables littoraux de la mer des Antilles provenant des abords de Colon et de Cuba. Bull. Mus. Nation. Hist. Nat. Paris 28 (6): 423-428; text figs. 1-4
CARCELLES, ALBERTO R.
1953. Nuevas especies de gastropodos marinos de las republicas oriental del Uruguay y Argentina. Comun. Zool. Mus. Hist. Nat. Montevideo 4 (70): 1-16; pls. 1-5
DAUTZENBERG, PHILIPPE
1910. Contribution à la faune malacologique de l'Afrique occidentale. Actes Soc. Linn. Bordeaux 64: 47-220; pls. 1-4
1912. Mission Gruvel sur la côte occidentale d'Afrique (1909-1910), mollusques marins. Ann. Inst. Océanogr. 5 (3): 1-111; pls. 1-3 [Marginellidae, pp. 18-27, by A. BAVAY] (December 1912)
1929. Mollusques testacés marins de Madagascar. Faune des Colonies Franç. 3: 321-636 (115-430); pls. 4-7
FISCHER, H.
1924. Liste des publications malacologiques d'A. Bavay. Journ. de Conchyl. 68 (2): 175-179 (30 May 1924)
FISCHER-PIETTE, E.
1950. Liste des types décrits dans le Journal de Conchyliologie et conservés dans la collection de ce Journal. Journ. de Conchyl. 90 (1): 8-23, plt. 1; (2): 65-82, pls. 2-4; (3): 149-180; plt. 5
FISCHER-PIETTE, E. & J. BEIGBEDER
1944. Catalogue des types de gastéropodes marins conservés au Laboratoire de Malacologie, VI. Mitridae, Marginellidae, Olividae, Columbellidae, et Conidae. Bull. Mus. Nation. Hist. Nat. 2nd ser., 16 (6): 448-462 (November 1944)
KEEN, A. MYRA
1971. Sea shells of tropical West America: marine mollusks from Baja California to Peru. Stanford Univ. Press, Stanford, Calif. i-xiv+1066 pp.; ca. 4000 figs.; 22 color pls. (1 September 1971)
LAMY, ÉDOUARD
1924. A. Bavay [obituary]. Journ. de Conchyl. 68 (2): 172-175 (30 May 1924)
LASERON, CHARLES
1957. A new classification of the Australian Marginellidae (Mollusca), with a review of species from the Solanderian and Dampierian zoogeographical provinces. Austral. Journ. Marine & Freshwater Res. 8 (3): 274-311; 84 text figs. (July 1957)
LUDBROOK, NELLY HOOPER
1958. The molluscan fauna of the Pliocene strata underlying the Adelaide Plains, Part V — Gastropoda (Eratoidae to Scaphandridae). Trans. Roy. Soc. South Austral. 81: 43-111; pls. 1-6 (March 1958)
OLSSON, AXEL ADOLF & THOMAS LADUE MCGINTY
1958. Recent marine mollusks from the Caribbean coast of Panama with the descriptions of some new genera and species. Bull. Amer. Paleontol. 39 (177): 1-58; pls. 1-5 (10 December 1958)
RIOS, ELIEZER DE CARVALHOS
1970. Coastal Brazilian seashells. Fundação Cid. Rio Grande, Mus. Oceanográf. de Rio Grande, Rio Grande, R. S. 255 pp.; 60 pls.; 4 maps (November 1970)
TOMLIN, JOHN READ LE BROCKTON
1917. A systematic list of the Marginellidae. Proc. Malacol. Soc. London 12 (5): 242-306 (22 August 1917)

